throughout the sensitivity analyses. **CONCLUSIONS:** Based on evidence from the PLATO study, treating a broad spectrum of ACS patients with ticagrelor for one year seems to offer a cost-effective option in the German health care setting compared with clopidogrel.

PCV71

SPONSORSHIP AND PHARMACOECONOMIC CONCLUSIONS OF STUDIES ON STATIN USE FOR CARDIOVASCULAR PREVENTION: A SYSTEMATIC ANALYSIS

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OBJECTIVES: We examined sponsorship of published economic evaluations of statin use for cardiovascular (CDV) prevention and evaluated whether funding is associated with study conclusions. **METHODS:** A systematic review was conducted in PubMed/MEDLINE (up to June 2011) to identify cost-effectiveness analyses of statin use for CDV prevention reporting outcomes as cost per life years gained and/or quality-adjusted life years. The review was restricted to 6 licensed statins: simvastatin, pravastatin, fluvastatin, lovastatin, atorvastatin and rosuvastatin. We classified study intervention data as follows: 1) comparators: statin-statin or statin-non active drug comparisons, and 2) primary or secondary CDV prevention. We established relationships between funding source (industry- vs. non-industry-sponsored studies) and qualitative conclusions (favorable, unfavorable or neutral) by means tests of differences between proportions. **RESULTS:** Overall, 72 studies were included. Thirty-six studies (50%) were carried out in Europe and 31 (43%) in North America. Fourty-seven (65%) articles compared statins versus non-active drugs. The category of CDV prevention was distributed as follows: 46% secondary, 39% primary and 15% both. Considering funding source, 64% were industry-sponsored studies. For studies evaluating primary CDV prevention, industry-sponsorship was much less likely to have unfavorable or neutral conclusions (0% vs. 59%; $p<0.001$). Conversely, these differences were not detected for studies evaluating secondary CDV prevention (0% versus 13%; $p=0.212$). **CONCLUSIONS:** Our results suggest that sponsorship of economic evaluation of statins is associated with their qualitative conclusions in primary CDV prevention.

PCV72

LONG-TERM COST EFFECTIVENESS ANALYSIS OF TICAGRELOR IN PATIENTS WITH ACUTE CORONARY SYNDROME FROM A POLISH HEALTH CARE PERSPECTIVE

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OBJECTIVES: The PLATO trial showed that in patients with acute coronary syndromes (ACS) treatment with ticagrelor compared with clopidogrel significantly reduced the rate of myocardial infarction, stroke, or death from vascular causes without a significant increase in the rate of overall major bleeding. The aim of this analysis is to estimate long-term cost-effectiveness of treating ACS patients with ticagrelor from a Polish health care perspective. **METHODS:** The model used is a two-part decision-analytic model, comprising a one-year decision tree and a long-term Markov model. Model estimates lifetime costs, LYGs and QALYs of treating ACS patients for one year with ticagrelor plus ASA compared with clopidogrel plus ASA. The model is based on the results observed in the PLATO study and populated with the overall clinical, resource use and quality of life results from PLATO trial. Unit costs were derived from the National Health Fund in Poland. A generic clopidogrel price of 0,92 PLN per day, and a ticagrelor price of 10,85 PLN per day were applied. Standard mortality rates for the Polish population were used. Data are presented in PLN with exchange rate: 1,00 PLN= € 0,25. **RESULTS:** Treatment with ticagrelor was associated with a QALY gain of 0,11 and a LYG gain of 0,12 compared with clopidogrel. The incremental cost of ticagrelor treatment was 2814 PLN. The ICER per QALY gained with ticagrelor compared with clopidogrel was 25 675 PLN, while the ICER per LYG with ticagrelor was 22 257 PLN. Probabilistic sensitivity analysis indicates that ticagrelor treatment has a 90% probability of being cost effective given a willingness of pay threshold of 40 000 PLN. The results are consistent in all ACS subgroups. **CONCLUSIONS:** Based on clinical and health economic evidence from the PLATO study, treating ACS patients with ticagrelor for one year is cost-effective compared with clopidogrel in Polish settings.

PCV73

COST EFFECTIVENESS OF SPEECH AND LANGUAGE THERAPY FOLLOWING STROKE

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OBJECTIVES: Communication impairment after stroke affects everyday activities and social participation. Speech and Language therapy (SLT) has waiting lists of 6 months plus in the National Health Service (NHS), implying a high opportunity cost. The aim was to evaluate the cost effectiveness of SLT versus attention control (AC), at six months, for people with communication difficulties due to aphasia/dysarthria following stroke. **METHODS:** The economic analysis was an integral component of a randomised, controlled, pragmatic trial comparing SLT (n= 85) and AC (n=85). The perspective was the NHS and social care, patients and families. The time horizon was 6 months (baseline to end of scheduled follow up). Resource use and health status (EQ-5D) were collected on all participants recruited into the trial. Utility values were estimated from the EQ-5D and associated population tariffs. The setting was inpatient and community/primary care in North West England; data were collected between 2006 and 2010. Unit cost data are for 2008-2009. Regression models estimated incremental or costs and outcomes for the ICER, adjusted for predefined covariates. Incremental costs and outcomes were bootstrapped to derive cost effectiveness acceptability curves, net benefit statistics and probability that SLT was cost effective. **RESULTS:** The net cost of SLT was £110 (95% percentiles: -£640 to +£861). The net utility was 0.01 (95% percentiles: -0.03 to +0.04). SLT is only likely to be cost effective if decision makers are willing to pay £25,000 or more to gain a 1 point increase in utility (p=0.50). The cost effectiveness of SLT depends on the outcome measure used and the baseline severity of stroke. **CONCLUSIONS:** The primary and sensitivity analyses indicated a high level of uncertainty suggesting it is not possible to conclude whether therapy is more or less cost effective than attention control.

PCV74

IS TREATMENT OF DEPRESSION COST EFFECTIVE IN THE MANAGEMENT OF PEOPLE WITH CHD AND DIABETES: A SYSTEMATIC REVIEW OF THE ECONOMIC EVIDENCE

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OBJECTIVES: About 33% of patients develop depression after myocardial infarction, while 25% of patients with diabetes have depression. Patients with co-morbid depression have lower treatment compliance and health status, increased healthcare use, social isolation and mortality. This study aimed to systematically review current economic evidence of non-pharmacological treatment interventions for patients with CHD or diabetes and co-morbid clinically-relevant depression. **METHODS:** The electronic search strategies (conducted in MEDLINE, EMBASE, PsycINFO, CINAHL, NHS EED) combined clinical search terms with terms used by the UK National Health Service Economic Evaluation Database (NHSEED), to identify full economic evaluations of the relevant interventions. Pre-specified screening and inclusion criteria were used. Standardised data extraction and critical appraisal (using NHSEED criteria) were conducted. **RESULTS:** Excluding duplicates, 1336 studies for CHD and 1281 for diabetes were screened. Four economic evaluations were identified (two for diabetes and two for CHD). The studies found that the interventions improved health status, reduced depression and were cost-effective compared to usual care. Both CHD studies were UK-based and used home-based cognitive behavioural programmes. The net costs were -£42 to £2, the net QALY gains were 0.006 to 0.009. The diabetes studies were based on US-based and used stepped collaborative care programmes delivered by specialised nurses. The net costs were -$1378 to $216, the net gains in depression free days were 53 to 115. **CONCLUSIONS:** The review highlighted the paucity of evidence in this area and associated uncertainty. Four small studies indicated the potential of psychological interventions to improve the quality of life, reduce depression and be cost-effective compared to usual care. Robust and well-designed economic evaluations of non-pharmacological treatment interventions for patients with co-morbid depression are needed. An economic model is being developed to synthesise data from various sources to explore this further.

PCV75

COST-EFFECTIVENESS OF OPTIMIZING USE OF STATINS IN AUSTRALIA: USING OUTPATIENT DATA FROM THE REACH REGISTRY

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OBJECTIVES: To estimate the cost-effectiveness of closing the statin 'treatment gap' in the secondary prevention of coronary artery disease (CAD) in Australia. **METHODS:** We developed a decision-analysis Markov model with yearly cycles and the following health states: 'Alive' and 'Dead'. Using data from the Australian Reduction of Atherothrombosis for Continued Health (REACH) registry, the model compared current statin coverage (82%) in the secondary prevention of CAD ('Current' group) with a hypothetical situation of 100% coverage ('Improved' group). The 18% gap was filled with use of generic statins. Data from a recent meta-analysis were used to estimate the benefits of statin use in terms of reducing recurrent cardiovascular events and death. Government-reimbursement data from 2011 was used to calculate direct healthcare costs. The cost of the intervention to improve statin coverage was assumed to be $250 per person. Years of life lived and costs were discounted at 5% annually. **RESULTS:** Among the 2058 subjects in the 'Current' group, the model estimated that there would be 106 non-fatal myocardial infractions, 68 non-fatal strokes and 275 deaths over five years. In the 'Improved' group, within which all subjects took statins, the corresponding numbers were 101, 65, and 259, equating to numbers needed to treat of 426, 639, and 127, respectively. Over the five years, there would be 0.018 life years gained (discounted) at a net cost of AUD $546 (discounted) per person. These equated to an incremental cost-effectiveness ratio (ICER) of AUD $29,717 per life year gained. **CONCLUSIONS:** The results suggest that for patients with CAD, maximizing coverage with statins, in line with evidence-based recommendations, represents a cost-effective means of secondary prevention.

PCV76

A COST-EFFECTIVENESS ANALYSIS OF CLOPIDOGREL IN PATIENTS WITH NON STABLE ACUTE CORONARY SYNDROME IN GREECE

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OBJECTIVES: To evaluate the cost-effectiveness of one-year treatment with clopidogrel plus aspirin compared to aspirin alone in patients without ST-segment elevation (NSTEMI) from the Greek third-party-payer perspective. **METHODS:** A

Markov model for evaluating the long-term cost-effectiveness of clopidogrel in patients with NSTEMI was adapted and extended by using local utility and economic values. The effect of clopidogrel was applied during the first year in the model and was estimated by the CURE trial. Costs assigned to each health state included antiplatelet treatment cost, cost for the management of adverse events and the costs for concomitant medication, hospitalization, outpatient visits, rehabilitation and nursing. The incremental cost-effectiveness ratio (ICER) was calculated. A probabilistic sensitivity analysis was conducted in order to assess the impact of all uncertain model parameters varying simultaneously. The results are presented as mean (95% Uncertainty Interval (UI)). **RESULTS:** The analysis showed a discounted survival of 8.27 (8.25-8.30) years in the aspirin treatment group and 8.42 (8.39-8.44) years in the aspirin+clopidogrel treatment group; a difference of 0.14 (0.11-0.18, p<0.001) years. Adjusting the survival for the quality of life, the model predicts 7.52 (7.15–7.79) and 7.66 (7.27–7.94) discounted QALYs in the aspirin and clopidogrel+aspirin arm, respectively, resulting in a difference of 0.14 QALYs (0.10-0.17, p<0.001). The cumulative lifetime costs per patient were € 15,976 (€14,848–€17.156) and € 15,392 (€14,301- €16,535), for aspirin and clopidogrel+aspirin treatment arm, respectively, a difference of € 584 (€525-€647). The ICER was €4111 (€3342–€5169) for each life-year saved and €4385 (€3487–€5647) for each QALY saved. For a decision threshold of €5500 per discounted QALY, clopidogrel+aspirin is cost-effective in more than 95% of randomly sampled analyses. **CONCLUSIONS:** Treatment with clopidogrel in addition to aspirin is a cost-effective treatment option in patients with NSTEMI from the perspective of a third-party payer in Greece.

PCV77

ECONOMIC EVALUATION OF DABIGATRAN ETEXILATE 150DIB FOR THE STROKE PREVENTION IN ATRIAL FIBRILLATION IN GREECE: A COST –EFFECTIVENESS ANALYSIS UNDER THE GREEK NHS SETTING

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OBJECTIVES: To estimate the cost-effectiveness of Dabigatran etexilate 150dib relative to Sintrom, Aspirin, Aspitin-Clopidogrel, Best Supportive Care and no treatment, in the management of patients with Atrial Fibrillation in the Greek health care setting. **METHODS:** A Markov model was adopted to estimate long term outcomes of patients moving during their lifetime in between the following health states: primary and recurrent ischemic stroke, hemorrhagic stroke, transient ischemic attack, systemic embolism, acute myocardial infarction, intracranial hemorrhage, extracranial hemorrhage and death. Data on event rates and patent quality of life associated with different health states and patient survival times were based on a multinational clinical trial (RE-LY) and the related literature. Furthermore, data on resource use associated with the management of patients and of different events were collected from a survey of local hospitals. Unit prices were collected from official resources and relate to 2011. A 3.5% discount rate was used for all outcomes. Sensitivity analysis and probabilistic analysis was used to test the robustness of the analysis **RESULTS:** The mean total life-time cost of patients on Dabigatran etexilate was estimated at €20,103, relative to €11,639 in the case of Sintrom, while mean Quality Adjusted Life Years (QALYs) were 9.86 and 9.83 for the two treatments, respectively. The incremental cost-effectiveness ratio of Dabigatran etexilate relative to Sintrom was estimated at €25,952. Similarly it was estimated at €8,223, €10,392 and €7,536 against Asprin-Clopidogrel, Aspirin alone and No-Tretament, respectively. Sensitivity analyses indicated that the cost-effectiveness of Dabigatran etexilate remained below acceptable thresholds (€50,000 per QALY gained) in significant variations of baseline parameters. Probabilistic analysis indicated that in about 85% of cases its cost-effectiveness ratios, relative to the above comparators were below the aforementioned threshold. **CONCLUSIONS:** Dabigatran etexilate may represent a cost-effective choice for the management of patients with atrial fibrillation in Greece.

PCV78

A COST-EFFECTIVENESS ANALYSIS OF CLOPIDOGREL VERSUS ASPIRIN IN PATIENTS WITH ATHEROTHROMBOSIS IN GREECE

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OBJECTIVES: To conduct an economic analysis comparing treatment with clopidogrel against aspirin in patients with peripheral artery disease, a recent stroke, or a recent myocardial infarction from the Greek third-party-payer perspective. **METHODS:** A Markov model with a 6-month cycle length was developed to evaluate the lifetime cost-effectiveness of clopidogrel versus aspirin. The effect of clopidogrel was applied only during the first 2 years of the model and this was retrieved from CAPRIE trial. Local utility data were used to estimate quality-adjusted life years (QALY). The state-specific costs consists of the costs that reflect and encapsulate all resource used for the care of patients within the health care system during a 6-month period in the acute and follow-up phase, separately. The cost-effectiveness of clopidogrel over aspirin was evaluated by calculating the incremental cost per life year saved (LYS) and incremental cost per QALY saved (ICER). A probabilistic sensitivity analysis was conducted and the results are presented as mean (95% Uncertainty Interval (UI)). **RESULTS:** The analysis showed that the discounted survival was 11.83 (11.41-12.22) years and 12.17 (11.75-12.55) years in aspirin and clopidogrel treatment group, respectively, a difference of 0.27 (0.10-0.45) life-years. The corresponding discounted QALYs were 8.63 (8.34 – 8.91) and 8.84 (8.54–9.10), respectively. The cumulative lifetime costs per patient were €19,880 (€18,863–€20,939) and €21,039 (€20,006–€22,089), for aspirin and clopidogrel treatment arm, respectively. The ICER was calculated to be € 4,921 (€ 3,079–€ 9,969) for each LYS and €6,326 (€ 3,737–€ 16,699) for each QALY saved. For a "willigness-to-pay" threshold of € 9,500 per discounted QALY, clopidogrel was found to be cost-effective in more than 90% of randomly sampled analyses. **CONCLUSIONS:** This economic analysis indicates that treatment with clopidogrel for secondary prevention of cardiovascular events in atherothrombotic patients is a cost-effective antiplatelet treatment over aspirin in a Greek third-party payer perspective.

PCV79

ECONOMIC EVALUATION OF ROSUVASTATIN VERSUS ATORVASTATIN, SIMVASTATIN AND PRAVASTATIN IN HIGH RISK PATIENTS TREATED FOR PRIMARY AND SECONDARY PREVENTION OF CARDIOVASCULAR DISEASE IN GREECE

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OBJECTIVES: To evaluate common therapeutic alternatives (rosuvastatin, atorvastatin, simvastatin, pravastatin) for the prevention of primary and secondary cardiovascular events in Greece. **METHODS:** A Markov model with distinct health states (no event, fatal/non fatal acute myocardial infarction (MI), fatal/non fatal stroke, post-MI, post-stroke & all cause death) was developed, to reflect within a 20-year time span health and economic outcomes of non-smoking patients assumed to be at base line at mean age of 70 years, with no prior treatment of hypertension, systolic blood pressure at 140mmHg and total cholesterol at 260mg/Dl. The HellenicSCORE risk score equation was used to transform systolic blood pressure reductions in different medications into long-term reductions in cardiovascular events. Transition probabilities from acute myocardial infarction or stroke to death were obtained from the Framingham study. Treatment cost was estimated from a payer perspective and includes the cost of medication and all resources used in the management of events. Health states were associated with local quality of life data to estimate Quality Adjusted Life Years (QALYs). A probabilistic sensitivity analysis was conducted to deal with uncertainty. Prices reflect 2011 and outcomes were discounted at 3.5%. **RESULTS:** For males, discounted QALYs were: 10.18 (95%CI:10.11-10.23), 10.04 (95%CI:9.96-10.10), 9.94 (95%CI: 9.84-10.02) and 9.88 (95%CI: 9.76-9.97) for rosuvastatin, atorvastatin, simvastatin and pravastatin, respectively. The mean total cost was: 15,646 (95%CI:15,173-16,130), 16,678 (95%CI:16,184-17,187), 17,242 (95%CI:16,732-17,766) and 17,585 (95%CI: 17,060-18,119) respectively. For females, QALYs were: 10.33 (95%CI:10.28-10.37), 10.26 (95%CI:10.20-10.30), 10.20 (95%CI:10.13-10.25) and 10.16 (95%CI: 10.08-10.22), respectively. Similarly, mean total cost was: 15,030 (95%CI:14,632-15,430), 15,608 (95%CI:15,192-16,023), 15,951 (95%CI:15,521-16,379) and 16,153 (95%CI:15,714-16,591) respectively. Hence rosuvastatin was a dominant therapy option. **CONCLUSIONS:** Rosuvastatin may represent an attractive option relative to alternative therapies, from an economic and clinical point of view, in the primary and secondary prevention of cardiovascular events in the National Health Service of Greece.

PCV80

ECONOMIC EVALUATION OF PRAVASTATIN FOR THE PREVENTION OF CORONARY ARTERY DISEASE IN JAPAN

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OBJECTIVES: The cost-effectiveness study of pravastatin for primary prevention of coronary artery disease (CAD) was assessed applying epidemiologic data and risk predictions of CAD in Japan. **METHODS:** A Markov transition model was used for evaluating the cost-effectiveness of 20mg/day of pravastatin treatment with diet therapy. The incidence of acute myocardial infarction (AMI) was estimated using newly developed risk predictions of CAD in Japan. Hypothetical population of men and women from 45 to 75 years old were assumed according to the cardiac risk factors from Japan Atherosclerosis Society Guideline for Prevention of Atherosclerotic Cardiovascular Disease. Quality-adjusted life-years (QALYs) and incremental cost-effectiveness ratios (ICERs) over a lifetime horizon were estimated from the perspective of payers. One way sensitivity analysis and probabilistic sensitivity analysis were conducted to see the robustness of the model. **RESULTS:** The predicted incidence of AMI was 4.4/10,000 person-years for men and 1.4/10,000 person-years for women aged 55 years with initial total cholesterol level (TC) of 240 mg/dl without other cardiac risk factors (i.e. low cardiac risk) and 20.1/10,000 person-years for men and 6.6/10,000 person-years for women with initial TC level of 240 mg/dl, and risks of smoking, hypertension and diabetes (i.e. high cardiac risk). Over a lifetime horizon, the ICERs were depended on the level of cardiac risk factors. The ICERs were decreased proportionally with increased age and number of cardiac risk factors. Considering the willingness to pay threshold per QALYs, pravastatin treatment was not cost-effective in all subgroups evaluated in this study. **CONCLUSIONS:** Due to the predicted low incidence of CAD in Japan, pravastatin treatment was not cost-effective for primary prevention of CAD in population not only at low cardiac risk but also at high cardiac risk. Further evaluations of cost-effectiveness on CAD treatment in Japan using available epidemiological data and risk predictions are needed.

PCV81

COST-EFFECTIVENESS OF TICAGRELOR VERSUS CLOPIDOGREL IN PATIENTS WITH ACUTE CORONARY SYNDROME: RESULTS FROM THE PLATO STUDY: A CANADIAN ANALYSIS

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